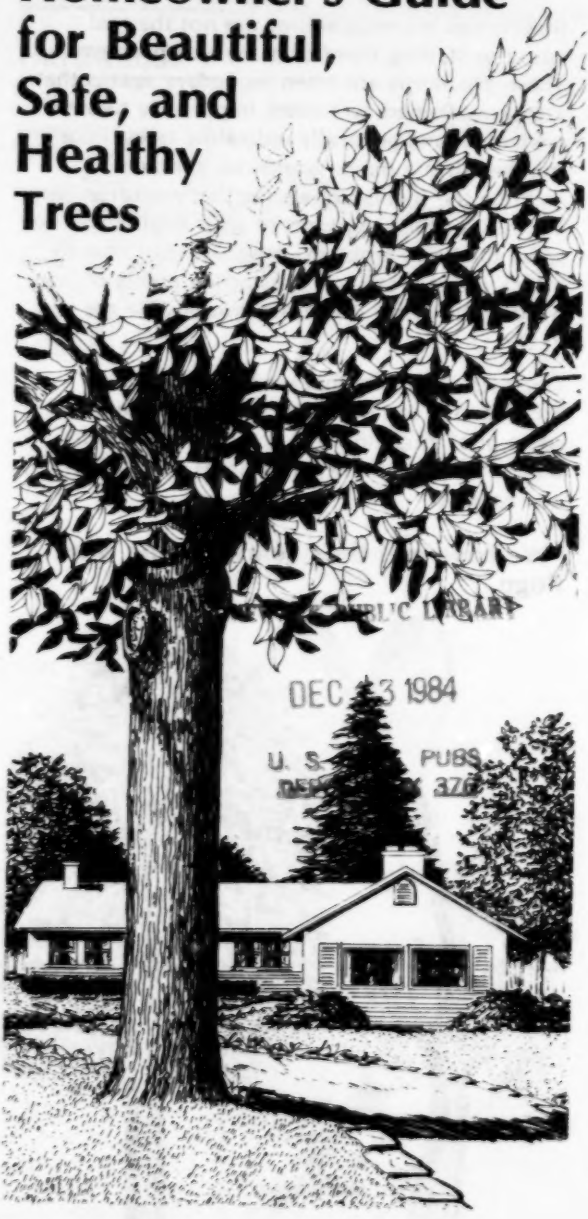
58-84

Homeowner's Guide for Beautiful, Safe, and Healthy Trees



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Northeastern Forest Experiment Station
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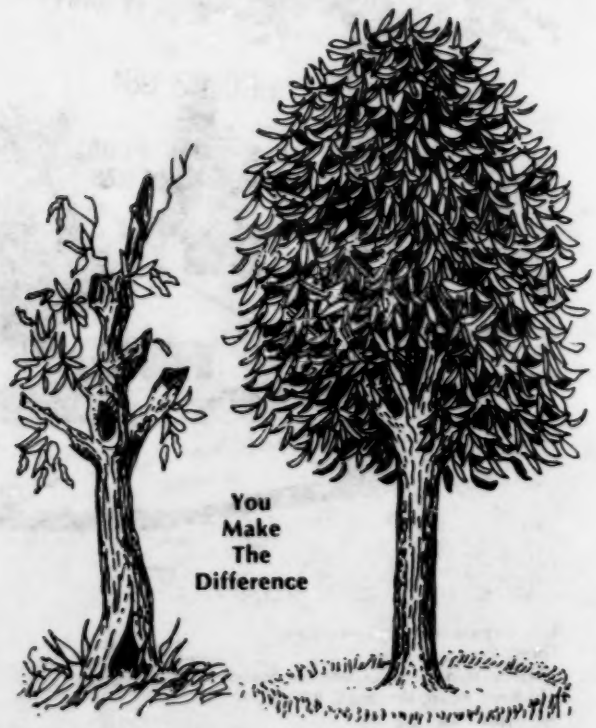
The Real Cause of Many Tree Problems

Insects and microorganisms are not the real cause or starting point of many tree problems. These organisms are often secondary agents that attack weakened, wounded, improperly treated, neglected, and generally unhealthy trees. Poor tree health is a major worldwide problem. Fighting the secondary agents that are often very obvious, or the symptoms of poor health, will not solve the basic problem. We must start now to attack the real causes: the starting points of poor health. The major organisms responsible are PEOPLE!

Once we recognize that we are often the problem, we can do much to solve it. Here are some brief guidelines for you, the homeowner, that will help you keep your trees beautiful, safe, and healthy.

"We have met the enemy; and he is us!"
Pogo



Give Trees a Good Start

Plant the right tree in the right place.

Do not plant:

- ☐ pin oaks in alkaline soils
- ☐ trees in old alkaline building rubble
- ☐ willows in dry soils, pines in wet soils
- ☐ birches in shade, dogwoods in unprotected open sites

Learn the biological requirements of your trees. Do not plant unless you plan to maintain.

Plant properly

Do not:

- ☐ crowd trees in small holes with compacted soil
- ☐ over-amend the soil with humus
- ☐ fertilize at planting time

Do prune dead and dying branches and roots.

Keep grass away

Do not:

- ☐ water grass heavily near trees that normally grow on dry sites
- ☐ lime grass heavily near trees that grow best in acid soils
- ☐ wound trees with lawnmowers and other machines

Heavy use of herbicides may harm trees.

Brace, but not too tightly.

Do not:

- ☐ tie young trees so tightly that they do not move
- ☐ leave braces on after tree is established
- ☐ kill bark with cords, wires, bands, etc.

Prevent wounds

Do not:

- ☐ allow anyone to climb your tree with spikes
- ☐ allow heavy construction machines near your tree
- ☐ park cars near trees

PRUNE CORRECTLY.
Correct pruning is the best thing you can do for your tree.
Here are the guidelines:

Natural target pruning

1. Locate the branch bark ridge (BBR).
2. Find target A—outside BBR.
3. Find target B—where branch meets collar.
4. If B cannot be found, drop an imaginary line at AX. Angle XAC equals XAB.
5. Stub cut the branch.
6. Make final cut at line AB (with powersaws make final cut on upstroke).

Do not:

- ☐ make flush cuts behind the BBR
- ☐ leave living or dead stubs
- ☐ injure or remove the branch collar
- ☐ paint cuts

The best time to prune living branches is late in the dormant season or very early in spring before leaves form. Dead and dying branches can be pruned anytime. Use sharp tools! Make clean cuts. Be careful with all tools. Safety first!

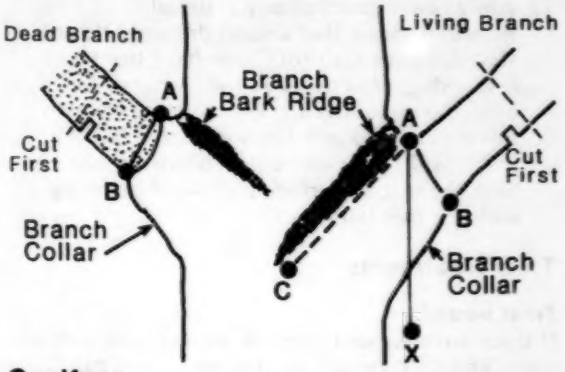
Topping

Topping trees is a serious injury regardless how it is done. Avoid it if possible by starting to prune early in the life of the tree to regulate its size and shape. If you must top cut, follow these guidelines:

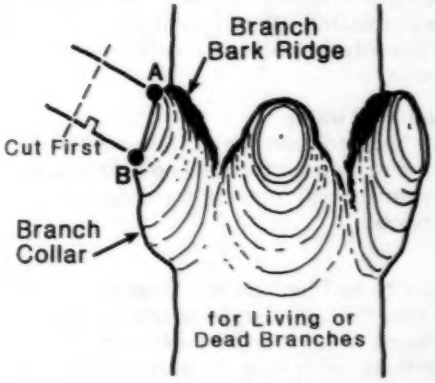
Cut line DE at an angle approximately the same angle as the angle of the BBR. Do not leave a stem stub. Do not paint the cut. Know your safety limits—call professionals when the job is too big for you.

Natural Target Pruning

Hardwoods



Conifers



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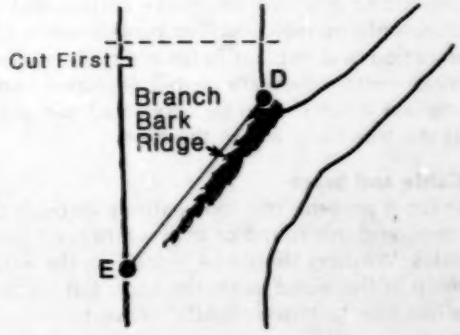

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Wound Dressings

Wound dressings do not stop rot.

Do not:

- ☐ apply house paints or wood preservatives
- ☐ apply heavy coats of any material.

Research shows that wound dressings do not stop decay or stall rot. Trees have been responding effectively to their wounds for over 200 million years. Do not interfere with this natural process. Keep your tree healthy and it will take care of its wounds. In a short time the wound surface will blend perfectly with the tree bark.

Tree Treatments

Treat wounds

If trees are wounded, remove injured bark with a sharp knife. Make cuts as shallow as possible. Forming an elongated ellipse is not necessary. Make all margins rounded; do not point tips. Do not enlarge the wound. Do not paint. Do everything possible to maintain health—water, fertilize, prune.

Holes for draining water

Do not bore holes to drain water from cavities. Drain tubes may be used for wetwood materials, but such treatment will increase the column of internal wetwood.

Cavities

If cavities are to be filled, do not clean so thoroughly that the boundary between decayed wood and sound wood is broken. Fill with nonabrasive materials. Leave for professionals.

Injections and implants

If you plan to have chemicals injected or implanted in your trees, make certain that it is done only by highly skilled professionals. Check injection and implant holes after one season to make certain they are closed. Injection and implant holes should be very small and shallow at the tree base, not in the roots.

Cable and brace

If rot is present, put rods entirely through the stem, and use round or oval washers on both sides. Washers should be seated on the wood, not deep in the wood or on the bark. Cables should allow tree to move slightly. Leave to professionals.

Help Trees Stay Healthy

Before you fertilize or consider treatments for microelement problems, have a soil test done. Your tree may require soil acidification before fertilization, or treatment for microelement problems. Fertilizers add elements essential for healthy growth. Fertilizers are not tree food!

Trees get their energy from the sun. Leaves and needles trap energy in a molecule of sugar. Sugar is tree food. Keep leaves and needles healthy by timely treatments so trees can get their food. Keep soils free of compaction so roots can get water and essential elements. Do not over fertilize.

Some insects and microorganisms DO start tree problems. When in doubt about what to do, contact the extension agents from your county, state, or university, or ask the United States Forest Service or professional arborists.

Check for potential hazards:

- ☐ large dying and dead branches
- ☐ rot in roots and base (fruit bodies of fungi are signs of rot)
- ☐ large deep vertical cracks on opposite sides of trunk

Be on the alert 5 to 10 years after construction. Have hazardous tree crowns reduced by professionals.

DON'T FORGET WILDLIFE. They need living and dead trees for survival. Consider them in your plans.

Learn about trees.

Prepared by Dr. Alex L. Shigo, plant pathologist, USDA Forest Service, Northeastern Forest Experiment Station, P.O. Box 640, Durham, New Hampshire 03824.

A learning package has been developed to help you and groups interested in tree health to learn more about trees. For information on the package and other information available from the U.S. Forest Service, contact Ms. H. Sharon Ossenbruggen at the above address, or call her at 603-868-5710.

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